

E/L

**Notice of Allowability**

Application No.

10/668,511

Examiner

Christopher M. Kalivoda

Applicant(s)

MERSHON ET AL.

Art Unit

2883

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment received 08/29/2005.
2. ☒ The allowed claim(s) is/are 1-11, 13-19 and 21-26.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some\* c) ☐ None of the:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.  
 (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached  
 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.  
 (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.  
 Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                                |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>102605</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                       |
|   | 9. <input type="checkbox"/> Other _____  |

**KAVEH KIANNI**  
**PRIMARY EXAMINER**



### Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

In accordance with discussions made in a telephone interview with the inventor's representative, Mr. Mike Plimier on October 26, 2005, the following changes have been made:

- a. In claim 1, line 2, **after the word board**, insert -- , the printed circuit board including a layer with a plurality of woven structural fibers and an embedded optical fiber woven with the structural fibers to form the layer, --.
- b. In claim 1, line 2, replace **the second** occurrence of "an" with – the --.
- c. In claim 9, line 2, **after the word material**, insert – including a layer with a plurality of woven structural fibers –
- d. In claim 9, line 3, **after the word fiber**, insert -- woven with the structural fibers to form the layer --.

In addition, it is noted that the claims received by fax on 10/29/05 were unreadable (especially claim 7). A clean copy was emailed to examiner and submitted for rescanning.

### **Reasons for Allowance**

Claims 1-11, 13-19 and 21-26 are allowed for the following reasons:

The instant application is deemed to be directed to a non-obvious improvement over the invention described in U.S. Patent Application Publication 2004/0042705 to Uchida et al.

Independent claims 1, 9 and 16 are allowed because the prior art of record, taken alone or in combination, fails to disclose or render obvious a method or device comprising a layer with a plurality of woven structural fibers and an embedded optical fiber woven with the structural fibers in combination with the rest of the limitations of the base claim.

Claims 2-8 and 21; 10, 11, 13-15 and 22-24; 17-19 and 25-26 depend on claims 1, 9 and 16 respectively and therefore they are also allowed.

Uchida et al. describe coupling two optical elements in which light is transmitted from the first optical element vertically down one via, redirected into a horizontally embedded optical fiber and redirected upwards in another via towards the second optical element. However, the reference is silent with respect to the embedded fiber being woven with the structural fibers of a matrix.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

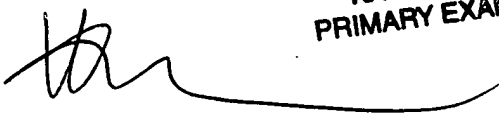
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Kalivoda whose telephone number is (571) 272-2476. The examiner can normally be reached on Monday - Friday (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Cmk  
10/26/05

  
**KAVEH KIANNI  
PRIMARY EXAMINER**